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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,147	08/22/2001	James P. Janniello	YOR920010386US2	3376
7590 06/08/2005			EXAMINER	
Ryan, Mason & Lewis, LLP Suite 205 1300 Post Road Fairfield, CT 06430			REILLY, SEAN M	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

4

Office Action Summary

Application No.

09/938,147

Applicant(s)

JANNIELLO ET AL.

Examiner

Sean Reilly

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to Applicant's amendment and request for continued examination (RCE) filed on 4/19/05. Claims 1-13 and 15-28 are presented for further examination. Independent claims 1, 9, 15, 18, 19, 20, 21, 22, 23 have been amended and new independent claim 28 has been added.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 21-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
2. Claims 21-23 are not limited to tangible embodiments. In view of Applicant's disclosure, specification page 12, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., a recordable medium) and intangible embodiments (e.g., transmission medium). As such, the claims are not limited to statutory subject matter and are therefore non-statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-13 and 15-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Carter et al. (U.S. Patent Number 6,026,474; hereinafter Carter) and Humphrey (U.S. Patent Application Publication Number 2002/0129116).

4. In considering claim 1, Carter disclosed a method for storing digital content in a client-side cache, said method comprising the steps of:

- receiving content broadcast to a client (see Col 27, lines 65-66);
- storing said received content in said client-side cache (see Col 28, lines 7-10), wherein said client is a machine that serves one or more users on a local area network (see Col 28, lines 17-19);
- and making said content in said client-side cache available to other clients (see Col 28, line 17-19).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails to specifically recite client caches obtaining content over a *wireless broadcast connection*.

Art Unit: 2153

Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection* was well known in the art at the time of the invention, as evidenced by Humphrey.

In a similar art, Humphrey discloses a caching system which uses a high speed one way satellite link to broadcast data from a master caching center to multiple local caching systems (see Humphrey, paragraph 31). The data broadcast to the local caching system is sent based on the selections for content from the local caching systems (see Humphrey, paragraph 31). Humphrey further discloses that the benefit of a “high speed cache update or broadcast channel provides the network with fast relief from redundant data transport and will quickly reduce congestion.” Thus, given the teaching of Humphrey, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides client-side caches with content, in order to design a more efficient system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

5. In considering claim 2, Carter discloses the method of claim 1, further comprising the step of determining if requested content is in said client-side cache before requesting said content from a remote source (see Col 28, lines 21-27).

6. In considering claim 3, Carter discloses the method of claim 1, further comprising the step of requesting said content from an edge server if said requested content is not in said client-side cache. This is an inherent step in Carter’s design. Carter discloses downloading content from a server into a cache (Col 27, line 65). This step only occurs when the requested content is not found in the cache.

7. In considering claim 4, Carter discloses the method of claim 1, further comprising the step of requesting said content from a provider of said content if said requested content is not in said client-side cache. This is an inherent step in Carter's design. Carter discloses downloading content from a content provider into a cache (Col 27, line 65). This step only occurs when the requested content is not found in the cache.

8. In considering claim 5, Carter discloses the method of claim 1, further comprising the step of requesting said content from another client cache if said requested content is not in said client-side cache (see Col 28, lines 30-34).

9. In considering claim 6, Carter discloses the method of claim 5, wherein said step of requesting said content from another client cache further comprises the step of accessing a directory to determine where said content is cached (see Col 7, lines 14-21).

10. In considering claim 7, Carter discloses the method of claim 1, further comprising the step of providing information to a central cache directory regarding content that is stored in said client-side cache (see Col 28, lines 22-23).

11. In considering claim 8, Carter discloses the method of claim 1, wherein said content in said client-side cache is made available to other clients using a point-to-point link (see Col 11, line 18).

12. In considering claim 9, Carter discloses a method for obtaining content over a network, said method comprising the steps of determining if requested content is in a local cache; and requesting said content from a remote client cache if said requested content is not in said local cache, wherein said content in said remote client cache was broadcast to a client, wherein said

Art Unit: 2153

client is a machine that serves one or more users on a local area network (see Col 28, lines 27-34).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails to specifically recite client caches obtaining content over a *wireless broadcast connection*. Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection* was well known in the art at the time of the invention, as evidenced by Humphrey.

In a similar art, Humphrey discloses a caching system which uses a high speed one way satellite link to broadcast data from a master caching center to multiple local caching systems (see Humphrey, paragraph 31). The data broadcast to the local caching system is sent based on the selections for content from the local caching systems (see Humphrey, paragraph 31). Humphrey further discloses that the benefit of a “high speed cache update or broadcast channel provides the network with fast relief from redundant data transport and will quickly reduce congestion.” Thus, given the teaching of Humphrey, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides client-side caches with content, in order to design a more efficient system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

13. In considering claim 10, Carter discloses the method of claim 9, further comprising the step of requesting said content from a remote source if said requested content is not in said remote

client cache. This is an inherent step in Carter's design. Carter discloses downloading content from a remote source into a cache (Col 27, line 65) and making the cached content available to other users in a global client cache (Col 28, line 19). The step of downloading content from a remote source only occurs when the requested content is not found in the cache.

14. In considering claim 11, Carter discloses the method of claim 9, further comprising the step of requesting said content from an edge server if said requested content is not in said remote client cache. This is an inherent step in Carter's design. Carter discloses downloading content from a server into a cache (Col 27, line 65). This step only occurs when the requested content is not found in the cache.

15. In considering claim 12, Carter discloses the method of claim 9, further comprising the step of requesting said content from a provider of said content if said requested content is not in said remote client cache. A content provider is considered to be a remote source as referenced in claim 10, therefore claim 12 fails to further limit and is rejected on the same basis as claim 10.

16. In considering claim 13, Carter discloses the method of claim 9, wherein said step of requesting said content from a remote client cache further comprises the step of accessing a directory to determine where said content is cached (see Col 7, lines 14-20).

17. In considering claim 15, Carter discloses a method for sharing digital content among a plurality of users, said method comprising the steps of:

- storing content broadcast to a client in a client-side cache of at least one client (see Col 27, line 65 and Col 28, lines 7-8), wherein said client is a machine that serves one or more users on a local area network (see Col 28, lines 17-19);

Art Unit: 2153

- making said content in said client-side cache available to a plurality of additional clients (see Col 2, lines 38-43);
- and maintaining a directory of said content made available to a plurality of additional clients (see Col 7, lines 17-20).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails to specifically recite client caches obtaining content over a *wireless broadcast connection*.

Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection* was well known in the art at the time of the invention, as evidenced by Humphrey.

In a similar art, Humphrey discloses a caching system which uses a high speed one way satellite link to broadcast data from a master caching center to multiple local caching systems (see Humphrey, paragraph 31). The data broadcast to the local caching system is sent based on the selections for content from the local caching systems (see Humphrey, paragraph 31). Humphrey further discloses that the benefit of a “high speed cache update or broadcast channel provides the network with fast relief from redundant data transport and will quickly reduce congestion.” Thus, given the teaching of Humphrey, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides client-side caches with content, in order to design a more efficient system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

18. In considering claim 16, Carter discloses the method of claim 15, wherein a user determines if requested content is in said directory before requesting said content from another remote source (see Col 5, lines 48-58).

19. In considering claim 17, the method of claim 15, wherein said content in said client-side cache is made available to other clients using a point-to-point link (see Col 11, line 18).

20. In considering claims 18 and 21, Carter discloses a system for storing digital content in a client-side cache, said system comprising:

- a memory that stores computer-readable code (see Fig 1, Component 34c); and
- a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to (see Fig 1, Component 30c) :
 - receive content broadcast (from a central server) to a client (see Col 27, line 65), wherein said client is a machine that serves one or more users on a local area network (see Col 28, lines 17-19);
 - store said received content in said client-side cache (see Col 28, lines 7-10);
 - and make said content in said client-side cache available to other clients (see Col 28, lines 17-19).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails

to specifically recite client caches obtaining content over a *wireless broadcast connection*.

Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection* was well known in the art at the time of the invention, as evidenced by Humphrey.

In a similar art, Humphrey discloses a caching system which uses a high speed one way satellite link to broadcast data from a master caching center to multiple local caching systems (see Humphrey, paragraph 31). The data broadcast to the local caching system is sent based on the selections for content from the local caching systems (see Humphrey, paragraph 31). Humphrey further discloses that the benefit of a “high speed cache update or broadcast channel provides the network with fast relief from redundant data transport and will quickly reduce congestion.” Thus, given the teaching of Humphrey, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides client-side caches with content, in order to design a more efficient system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

21. In considering claim 19, Carter discloses a system for obtaining content over a network, said system comprising:

- a memory that stores computer-readable code (see Fig 1, Component 34c); and
- a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to (see Fig 1, Component 30c) :
 - determine if requested content is in a local cache (see Col 28, lines 23-34); and

Art Unit: 2153

- request said content from a remote client cache if said requested content is not in said local cache, wherein said content in said remote client cache was broadcast to a client (see Col 28, lines 23-34), wherein said client is a machine that serves one or more users on a local area network (see Col 28, lines 17-19).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails to specifically recite client caches obtaining content over a *wireless broadcast connection*. Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection* was well known in the art at the time of the invention, as evidenced by Humphrey.

In a similar art, Humphrey discloses a caching system which uses a high speed one way satellite link to broadcast data from a master caching center to multiple local caching systems (see Humphrey, paragraph 31). The data broadcast to the local caching system is sent based on the selections for content from the local caching systems (see Humphrey, paragraph 31). Humphrey further discloses that the benefit of a “high speed cache update or broadcast channel provides the network with fast relief from redundant data transport and will quickly reduce congestion.” Thus, given the teaching of Humphrey, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides client-side caches with content, in order to design a more efficient system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

22. In considering claim 20, Carter discloses a system for sharing digital content among a plurality of users, said system comprising:

- a memory that stores computer-readable code (see Fig 1, Component 34c); and
- a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to (see Fig 1, Component 30c) :
 - store content broadcast to a client in a client-side cache of at least one client (see Col 28, lines 7-10), wherein said client is a machine that serves one or more users on a local area network (see Col 28, lines 17-19);
 - make said content in said client-side cache available to a plurality of additional clients (see Col 28, lines 17-19);
 - and maintain a directory of said content made available to a plurality of additional clients (see Col 7, lines 17-20).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails to specifically recite client caches obtaining content over a *wireless broadcast connection*. Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection* was well known in the art at the time of the invention, as evidenced by Humphrey.

In a similar art, Humphrey discloses a caching system which uses a high speed one way satellite link to broadcast data from a master caching center to multiple local caching systems (see Humphrey, paragraph 31). The data broadcast to the local caching system is sent based on the selections for content from the local caching systems (see Humphrey, paragraph 31). Humphrey further discloses that the benefit of a “high speed cache update or broadcast channel provides the network with fast relief from redundant data transport and will quickly reduce congestion.” Thus, given the teaching of Humphrey, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides client-side caches with content, in order to design a more efficient system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

23. In considering claim 21, claim 21 contains no further limitations over claim 18, and is therefore rejected on the same basis as claim 18.

24. In considering claim 22, claim 22 contains no further limitations over claim 19, and is therefore rejected on the same basis as claim 19.

25. In considering claim 23, claim 23 contains no further limitations over claim 20, and is therefore rejected on the same basis as claim 20.

26. Regarding claims 24-27, Carter fails to specifically recite content broadcast to said client is broadcast prior to being requested by a user or where received content was predicted to be of interest to a user. In a related art, Humphrey discloses predicting content of interest to a user (pg

2, ¶ 24) and then sending the content predicted to be of interest prior to a client request (pg 2, ¶ 25). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the content prediction and transmission system disclosed by Humphrey within Carter's system in order to relieve the network from transporting replicated data and redundant information (Humphrey pg 2, ¶ 25).

27. Claims 1-13 and 15-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al. (U.S. Patent Number 6,026,474; hereinafter Carter) and Mao et al. (U.S. Patent Number 6,886,178; hereinafter Mao).

28. Regarding claim 1, Carter disclosed a method for storing digital content in a client-side cache, said method comprising the steps of:

- receiving content broadcast to a client (see Col 27, lines 65-66);
- storing said received content in said client-side cache (see Col 28, lines 7-10), wherein said client is a machine that serves one or more users on a local area network (see Col 28, lines 17-19);
- and making said content in said client-side cache available to other clients (see Col 28, line 17-19).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails to specifically recite client caches obtaining content over a *wireless broadcast connection*.

Art Unit: 2153

Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection* was well known in the art at the time of the invention, as evidenced by Mao.

In a similar art, Mao discloses a broadcasting system (abstract) which uses a *wireless broadcast connection* (direct broadcast satellite) to broadcast data to multiple clients (e.g. set top boxes) (see Mao, Col 6, lines 6-14). Thus, given the teaching of Mao, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides clients with content, in order to design a more efficient system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

29. Regarding claims 2-13 and 15-23, the limitations of claims 2-13 and 15-23 are mapped similarly as above with respect to Carter and use a similar rationale as in claim 1 for combining the systems of Carter and Mao.

30. Regarding claims 24-27, Mao disclosed said broadcast content to said client is broadcast prior to being requested by a user and was predicted to be of interest to a user (Mao Col 4, lines 6-9).

30. Regarding claim 28, Carter disclosed a method for storing digital content in a client-side cache, said method comprising the steps of:

- receiving content broadcast to a client (see Col 27, lines 65-66);

Art Unit: 2153

- storing said received content in said client-side cache (see Col 28, lines 7-10), wherein said client is a machine that serves one or more users on a local area network (see Col 28, lines 17-19);
- and making said content in said client-side cache available to other clients (see Col 28, line 17-19).

Carter teaches a client-side caching system where clients share their respective caches with each other as discussed above. Carter further teaches remote client caches obtaining content broadcast from a given server (see Col 17, line 65 and Col 28, lines 7-8). However, Carter fails to specifically recite client caches obtaining content over a *wireless broadcast connection where the client is tuned to receive the content via digital television channel*. Nonetheless, the feature of obtaining content for a cache over a *wireless broadcast connection where the client is tuned to receive the content via digital television channel* was well known in the art at the time of the invention, as evidenced by Mao.

In a similar art, Mao discloses a broadcasting system (abstract) which uses a *wireless broadcast connection* (direct broadcast satellite) to broadcast data to multiple clients (e.g. set top boxes) (see Mao, Col 6, line 1 and lines 6-14). Mao further disclosed the client is tuned to receive the content through said wireless broadcast connection via a digital television channel (e.g. MPEG feed) (Mao, Col 5, lines 22-36) Thus, given the teaching of Mao, it would have been obvious to a person having ordinary skill in the art to design the Carter system with a satellite link broadcast system which provides clients with content, in order to design a more efficient

system. The system is more efficient since it provides fast relief from redundant data transport, which reduces congestion.

Response to Arguments

1. In response to Applicant's request for reconsideration filed on 4/19/05, the following factual arguments are noted:

- a. Humphrey only can broadcast content over a wireless broadcast connection to ISPs or corporate customers.
- b. Carter and Humphrey fail to teach broadcasting content over a *digital television channel*.

2. In response to (a), Examiner respectfully disagrees with Applicant. Humphrey can broadcast content to any client. In ¶s 40 and 44 Humphrey merely disclosed an embodiment where receiving broadcast clients may serve one or more clients. Humphrey fails to limit the definition of a *client* in ¶s 40 and 44.

By the assertions set forth in Applicant's response on pg 9, it appears the Applicant intends clients to be strictly defined as *end-users* which in some form utilize the broadcast content. However no such limitation exists in the present claims. Further if such a limitation did exist in the claims, the strict definition of a client would still fall within the scope Humphrey's broadcast clients. Additionally Mao explicitly taught broadcasting data over a wireless broadcast connection to an end-user (Mao Col 6, lines 6-14; broadcast to set-top boxes).

3. In response to (b), Examiner agrees with Applicant and accordingly new art has been applied.

Conclusion

The prior art made of record, in PTO-892 form, and not relied upon is considered pertinent to applicant's disclosure.

THIS ACTION IS MADE NON-FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Reilly whose telephone number is 571-272-4228. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


5/24/05


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